

**REMARKS/ARGUMENTS****The Final Rejection**

In the above-mentioned Final Rejection, claims 14-27 were rejected as being anticipated by Japanese Patent 3045250 ('250), and claims 14-15, 18-21, and 24-26 were rejected as being anticipated by U.S. Patent No. 6,881,928 (Wong).

In response to the above-mentioned Final Rejection, claims 14 and 27 have been amended, claim 27 has been amended and new claims 28-34 have been added

**The Claims are Patentable over the Prior Art**

It is respectfully contended that none of the references individually or in combination discloses or suggests a hair curling apparatus having, *inter alia*, a curler body comprising a mixture of (a) a heat-resistant resin, (b) a silicon dioxide-based multi-element mineral powder, and (c) a far-infrared emitting powder; wherein the multi-element mineral powder includes silicon dioxide powder and aluminum oxide powder; and wherein the far-infrared emitting powder includes silica powder and alumina powder.

Amended independent claim 14 and new independent claim 31 both include that the mixture causes electromagnetic waves of 4 to 14 microns to be emitted when the curler body is heated by the internal heater. This is not disclosed by '250 Japan or by Wong. See also new dependent claims 29, 30, 32 and 33. The present invention emphasizes the synergistic effect provided by both the SiO<sub>2</sub> based powder for negative ions and Al<sub>2</sub>O<sub>3</sub> based powder for extreme infrared radiation, that is an essential embodiment to lead to the emission of the 4-14 micron electromagnetic waves. This phenomena cleaves chains of moisture molecules in the cells of human hair into repeatedly smaller ones. Additionally, the phenomena of emitting electromagnetic waves enhances and promotes cell activities as well as improving blood circulation in the user's scalp.

Referring to paragraph [0025] of the present application and the amendment to claim 14 and new claim 29, the presence of the silicon dioxide-based multi-element mineral powder mixed with the far-infrared emitting powder advantageously and uniquely results in negative ions, weak energy, and far infrared radiation being generated from the curler body. In particular, silica emphasizes the negative ion effect and alumina emphasizes the far-infrared radiation effect. This reduces the size of the groups of molecules in the water so that the water penetrates deep within the user's hair, whereby the moisture balance of the hair is adjusted so that the condition thereof approaches a healthy state and a strong and attractive curl can be imparted. As a result of the activation of proteins in the hair by the action of these negative ions, this weak energy, and this far infrared radiation, the hair can be constantly maintained in a healthy state. Since the thermal efficiency of the hair curling apparatus can be increased by the action of these negative ions, this weak energy, and this far infrared radiation, and the setting time can thereby be reduced. A 10% reduction in setting time is expected.

Further to the discussion above., negative ions, weak energy, and far infrared radiation reduce the size of the groups of molecules in the water so that it penetrates deep within the hair, thus reducing static electricity and maintaining shiny hair. Furthermore, negative ions, weak energy, and far infrared radiation act so that an attractive curl can be imparted by the hot curlers to hair that has been damaged by excessive use of hair coloring, permanent wave treatments, and/or hair dryers, and to difficult-to-set fine hair.

Thus, not only are the elements and limitations of the new claims not suggested individually or with any combination of the prior art references of record, but the hair curler of the present invention satisfies long-felt needs and has unexpected results, thereby overcoming any *prima facie* case of obviousness which may be asserted against the pending claims.

In other words, a goal of the present invention is to provide a hair curling apparatus which keeps the hair styled for a longer period after the hair has been set, which imparts a sheen to the hair and which enhances a healthier state of the hair. This

is accomplished by a synergistic effect of the feeble energy of electromagnetic radiation, of negative ions and of far-infrared radiation. Additionally, the present invention provides for improved permeation of moisture into the hair.


**Concluding Remarks**

Accordingly, it is respectfully contended that all of the claims now pending are in condition for allowance. Issuance of the Notice of Allowance at an early date is thus in order.

If there are any remaining issues, Examiner Manahan is encouraged to telephone the below-signed counsel for Applicant at (310) 785-5384 to seek to resolve them.

The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 10-0440. Should such additional fees be associated with an extension of time, Applicant respectfully requests that this paper be considered a petition therefor.

Respectfully submitted,



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Dated: October 30, 2007

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